Frogs and Toads

by Chris Mattison

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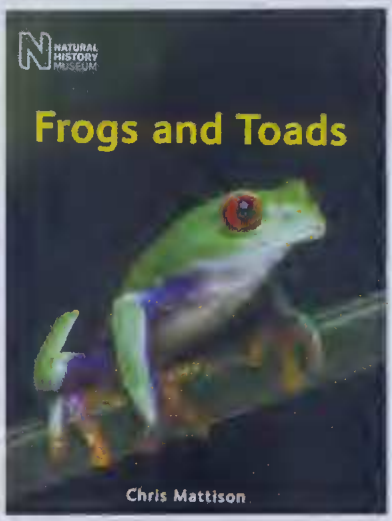

'What a wonderful bird the frog are!' says the old poem; and indeed this handsome book will almost have you believing that frogs rival birds for variety and colourfulness. Chris Mattison is a past runner-up in the Wildlife Photographer of the Year competition, and the photographs in the book, mostly his own, are excellent. But it is not just a coffee-table book: the text is a thorough and up-to-date summary of frog biology. About two-thirds of it covers origins and classification, size and shape, colour and markings, interactions with the physical environment, enemies and defence, food and feeding, reproduction, life-cycles, habitat and distribution, and frogs and man. The last and longest chapter provides a thumbnail sketch of each of the families. How many are there? A 1981 frog book on my shelf lists 12; Mattison's tally is 49. The explosion is due largely to the insights being supplied by molecular methods, and I don't for one moment suppose that the present assessment will be the final one.

Scattered through the main text are boxed sections treating such topics as 'Polymorphism', 'Poison dart frogs and South American Indians' and 'Urban frogs'. These, like the rest of the text, are succinct and well-organised; indeed, the general quality of writing and editing is outstanding. The only blemish I could find is the common misapprehension that the sound-generating structures in the larynx are vocal 'chords' rather than 'cords'.

Mattison's broad knowledge of frogs is vastly greater than mine; hence the only way I can test the accuracy of his account and the breadth of his coverage is to choose little bits that I am familiar with, and see how well he handles them. An old friend from African days, for instance, the Gray Tree Frog *Chiromantis*, is remarkable in at least two aspects of its biology: it conserves water by excreting uric acid rather than the urea or ammonia typical of amphibians. And its spawn is placed in foamy nests on branches overhanging water; a number of males may join an amplectant pair and try to sneak some of their sperm in, so that a spawning aggregation of a dozen or more frogs in a mass of white froth sometimes results. Not only does Mattison know about these things; he also provides a gorgeous photograph (p. 86) of a spawning aggregation in action.

There are a couple of minor irritations. The photo captions don't include the size of their subjects; so, for instance, on p. 93 there's a fine photo of a male African Bullfrog caring for his tadpoles, but no indication that on the froggy scale of things this species is *huge*, weighing up to 1 kg. And where a species' photo is a long way from the species account (as in this case; the text on the species is on p. 177), the text doesn't tell you where the photo is.

I could have wished for a little more on mating calls and a little more on tadpoles, but that doesn't alter my view: this is a valuable, attractive and comprehensive book which I recommend wholeheartedly. If you like frogs you'll love it; if you're indifferent to frogs it will change your mind.

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